DEP Electrode Layer Magnetic Layer Chamber Particle Switch Layer Acoustic Layer Top Layer

Figure 1A

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Figure 1B

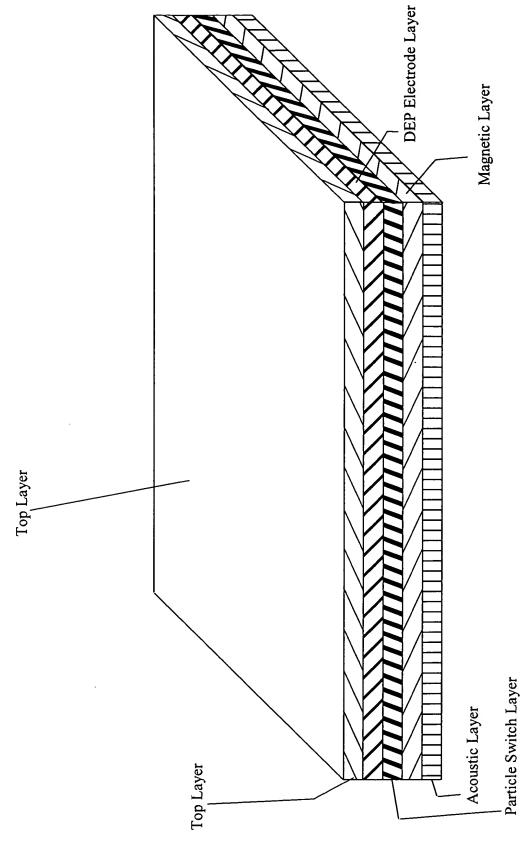


Figure 1C

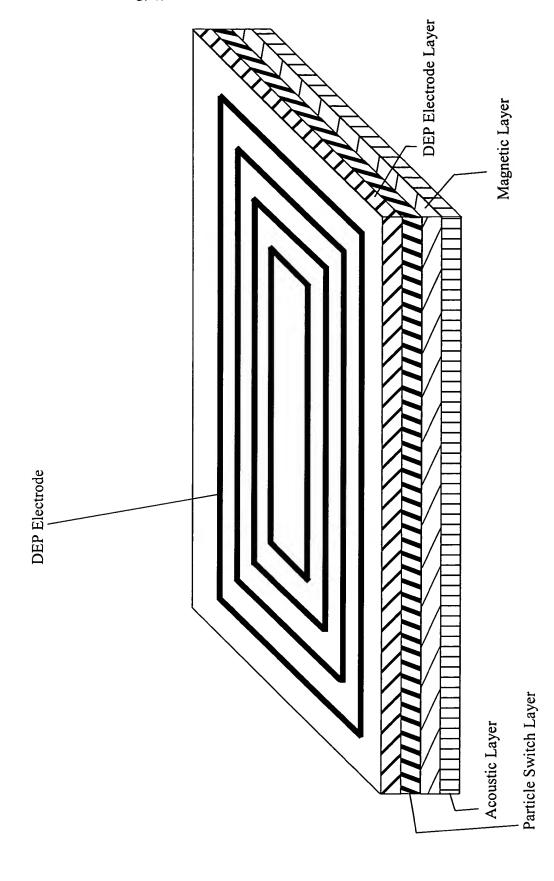
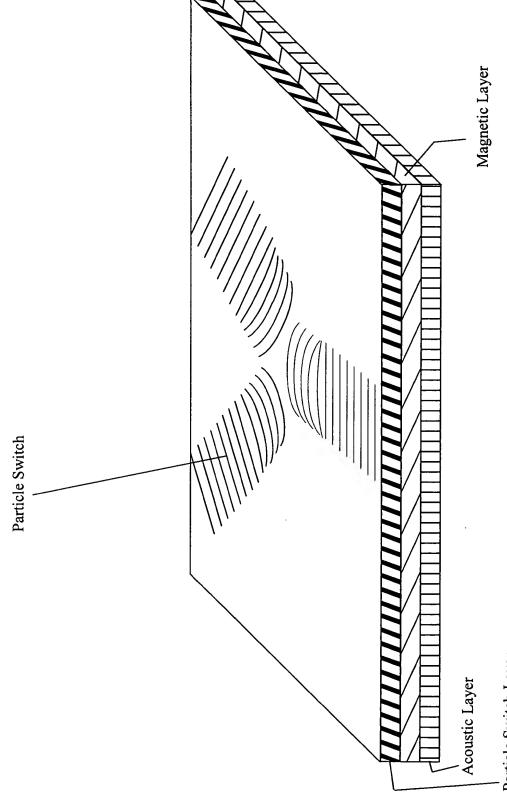


Figure 1D



Particle Switch Layer

Figure 1E Electromagnetic Unit

Magnetic Layer Acoustic Layer

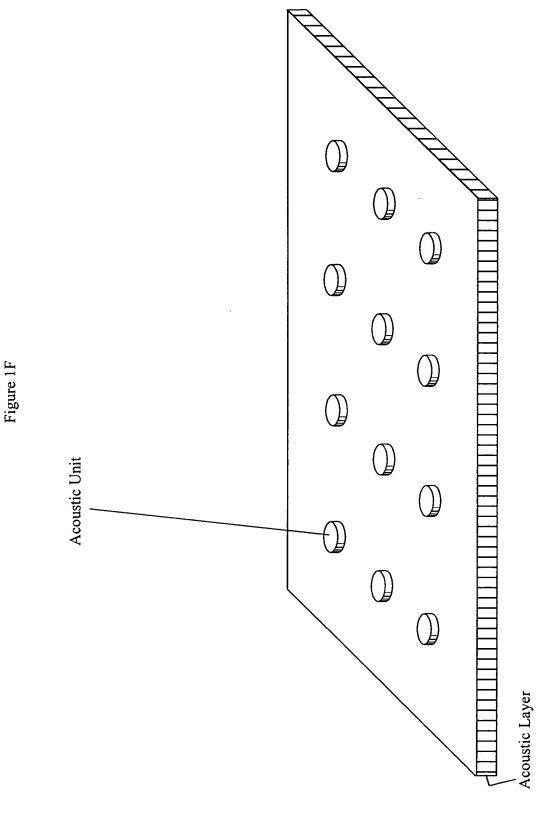


Figure 2A

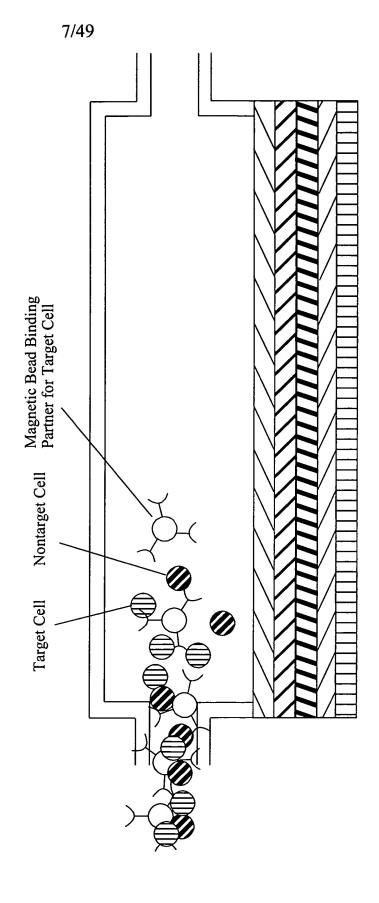


Figure 2B

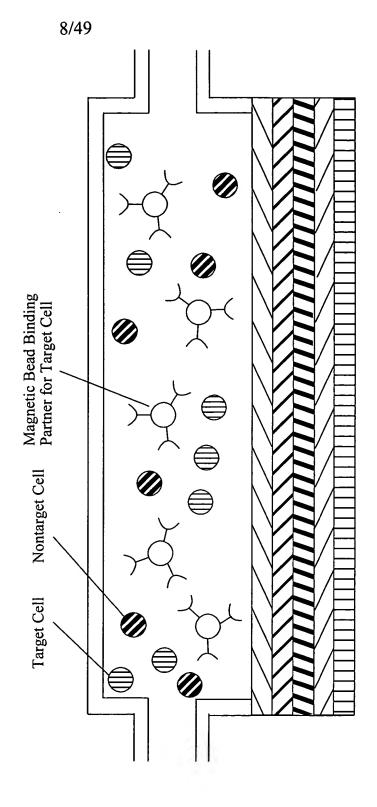


Figure 3

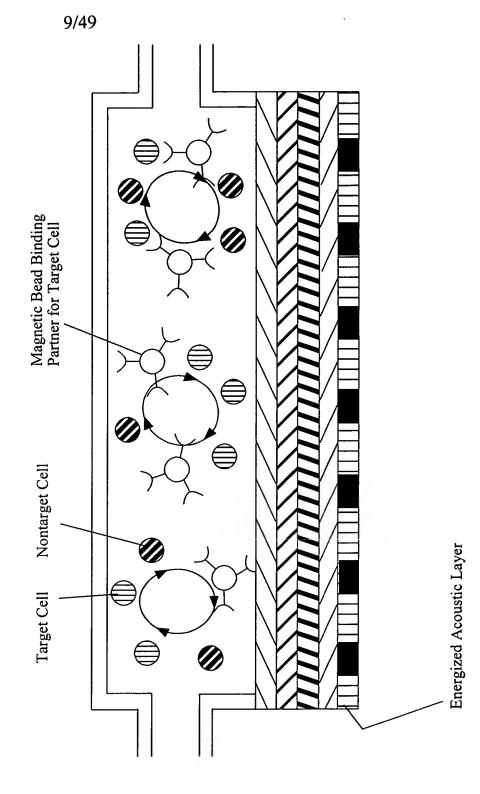


Figure 4

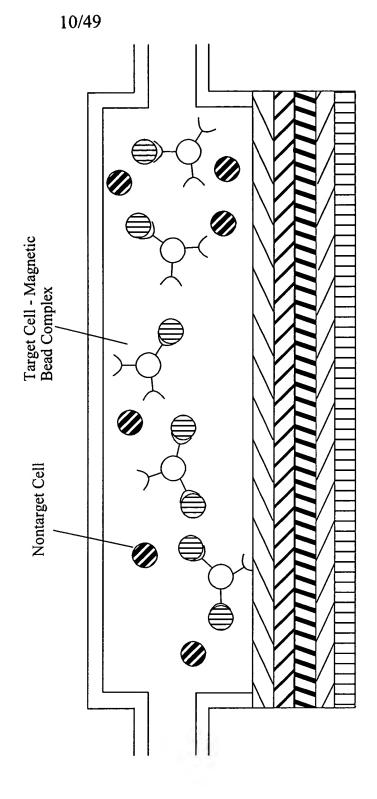
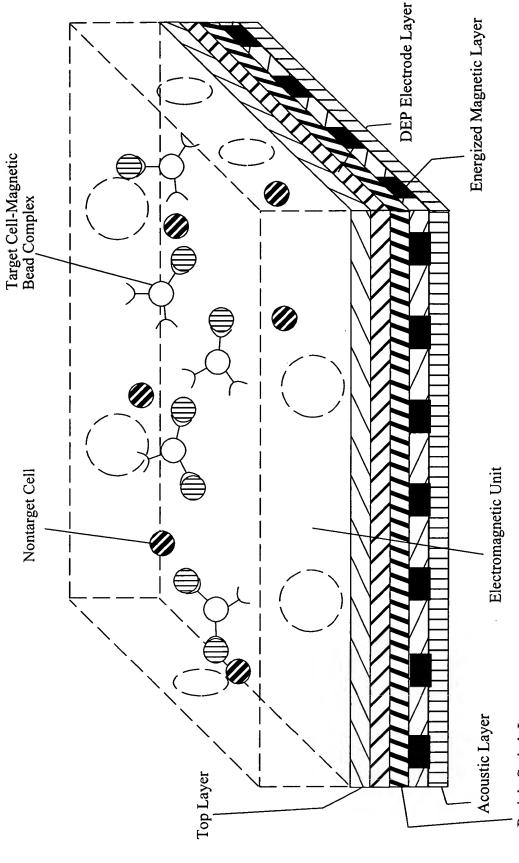
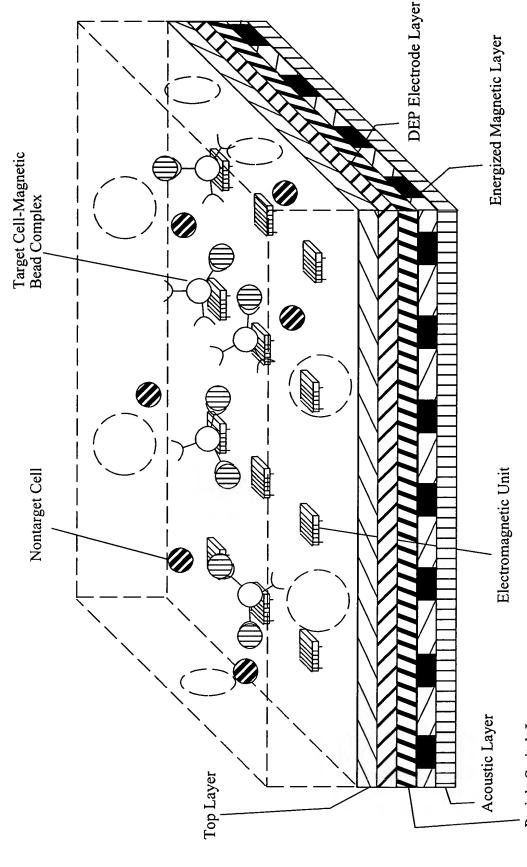


Figure 5A



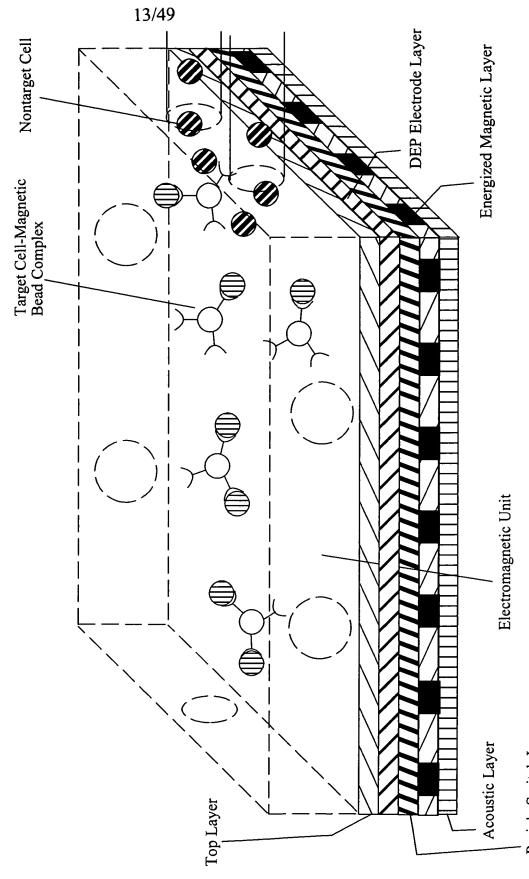
Paricle Switch Layer

Figure 5B



Paricle Switch Layer

Figure 5C



Paricle Switch Layer

DEP Electrode Layer Energized Magnetic Layer Magnetic Bead Decoupled Target Cells Acoustic Layer Top Layer

Paricle Switch Layer

Figure 6

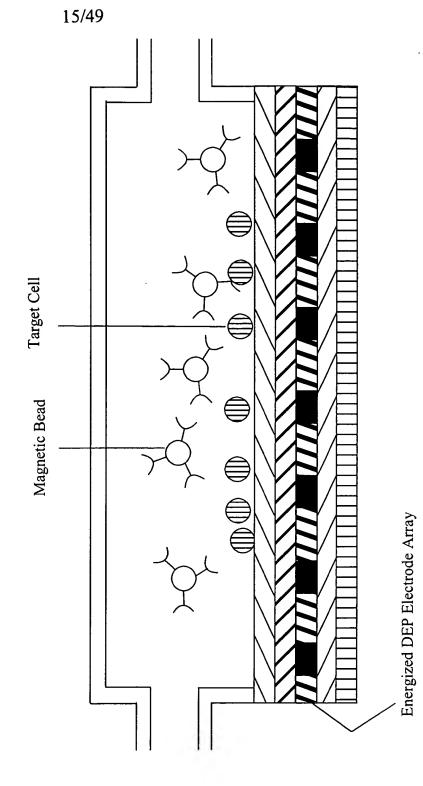
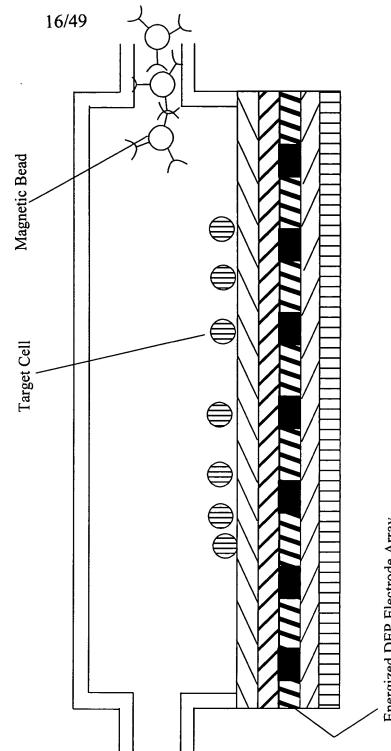


Figure 7B



Energized DEP Electrode Array

Figure 8

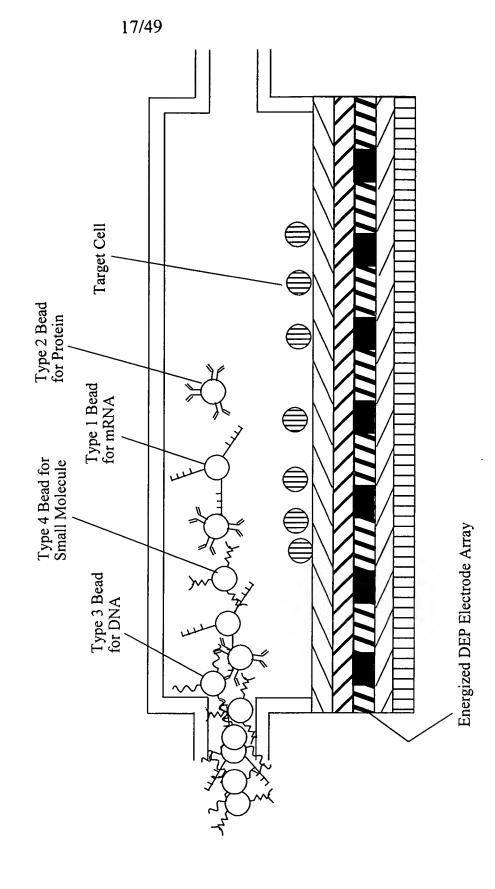


Figure 9A

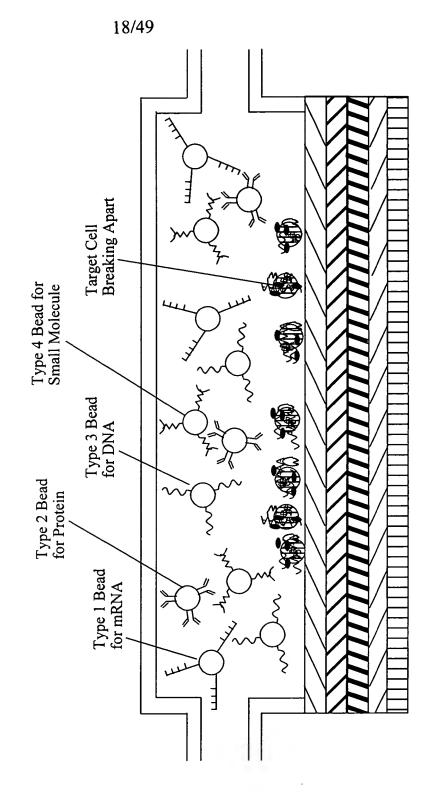


Figure 9B

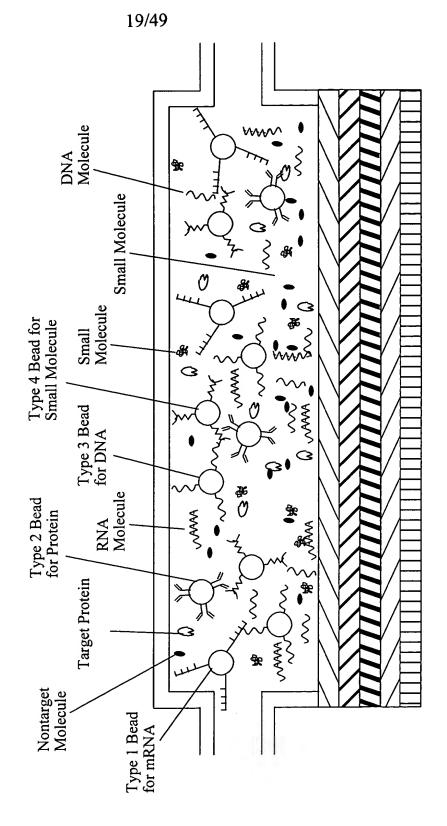


Figure 10

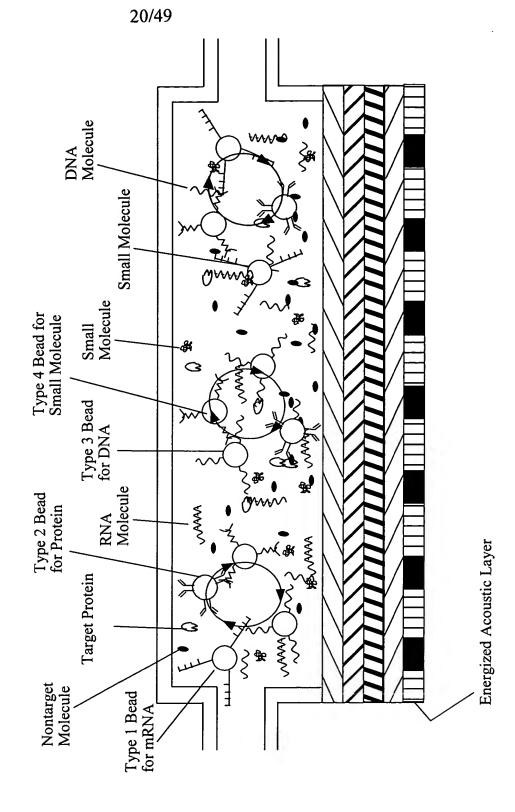


Figure 11

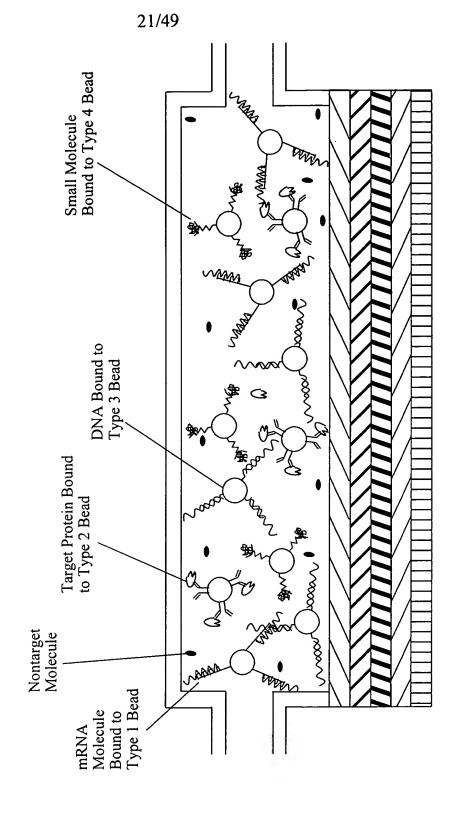
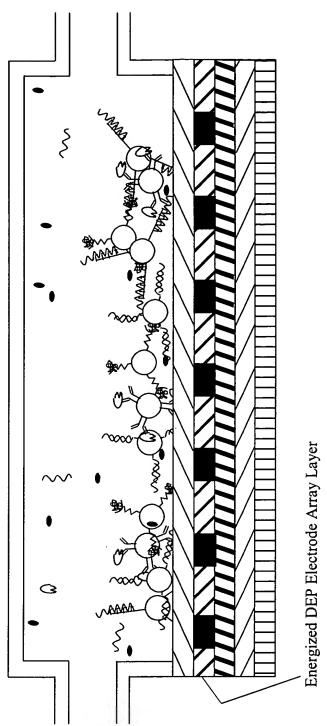
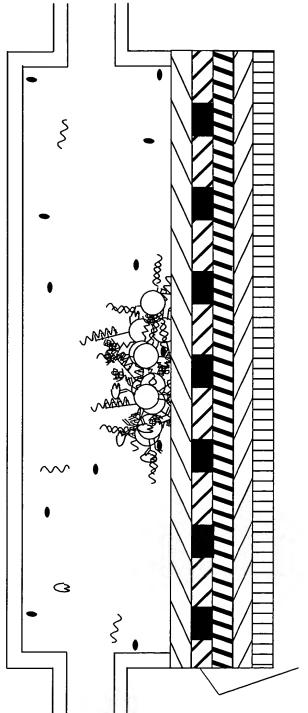


Figure 12A





Energized DEP Electrode Array Layer

Figure 13A

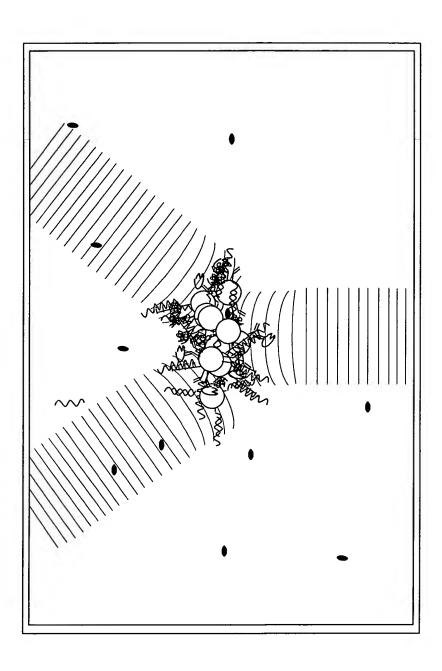


Figure 13B

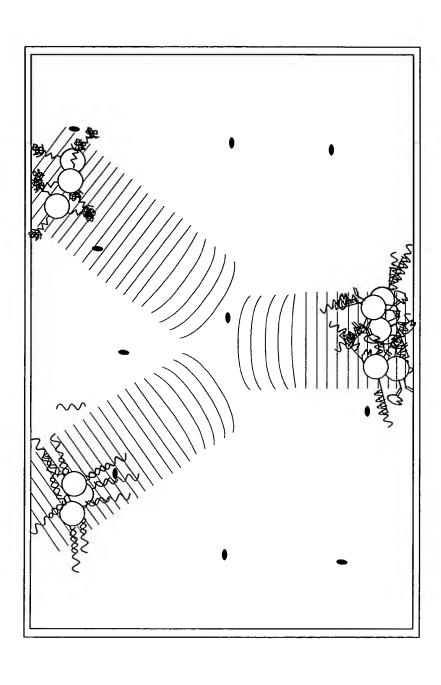


Figure 13C

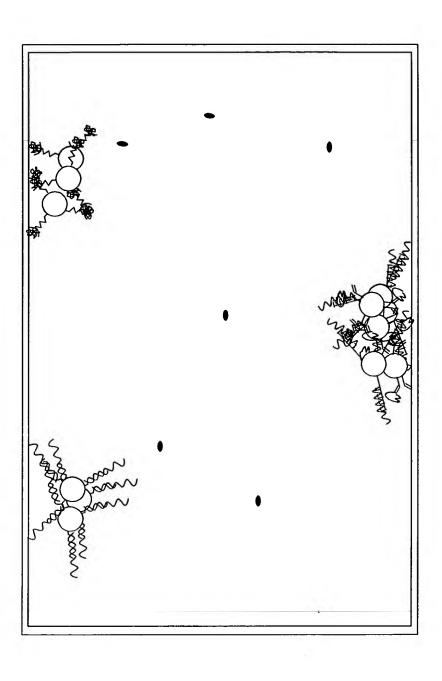


Figure 14A

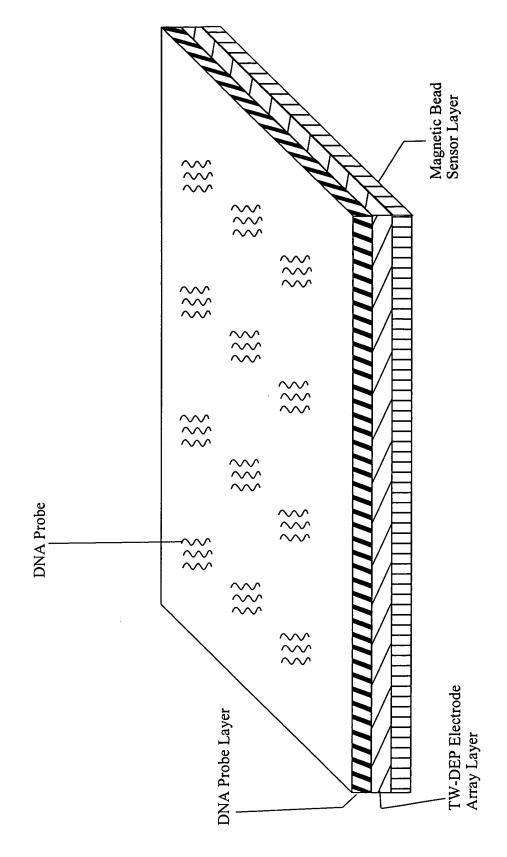


Figure 14B

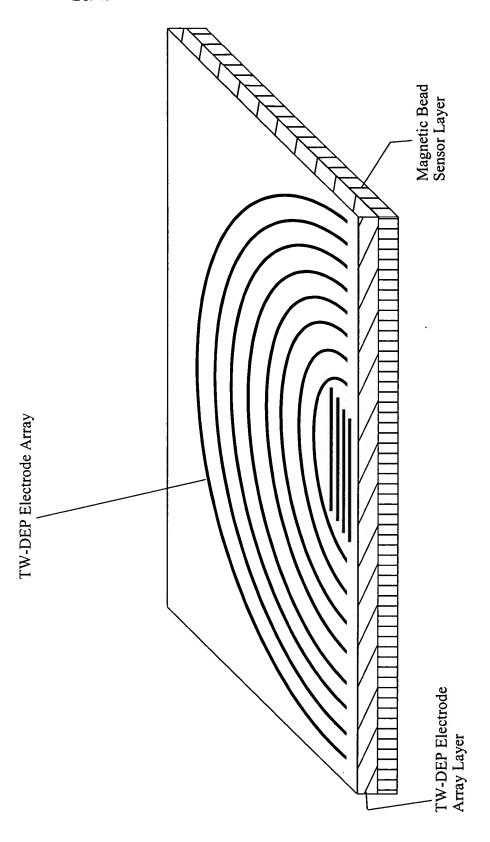


Figure 14C

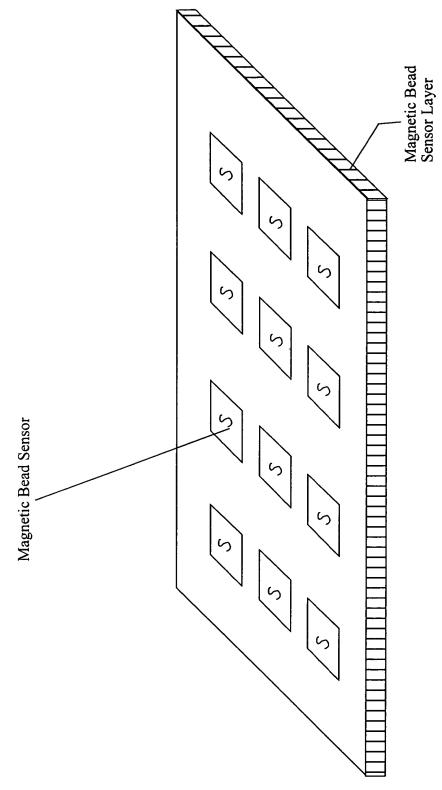


Figure 14D

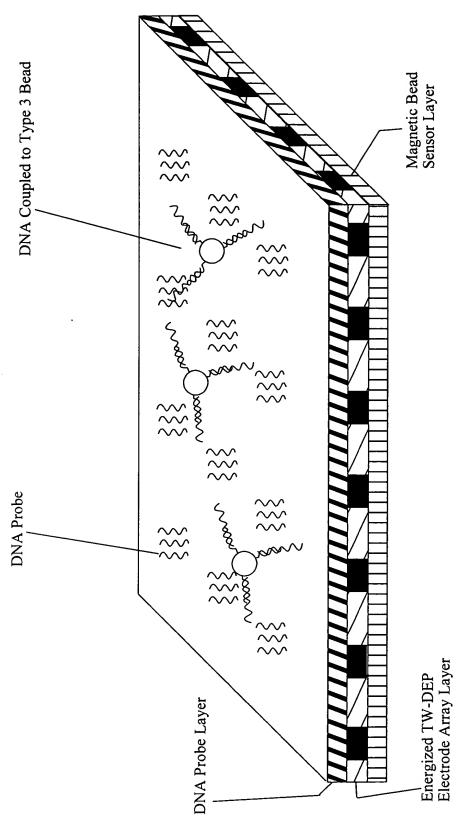


Figure 14E

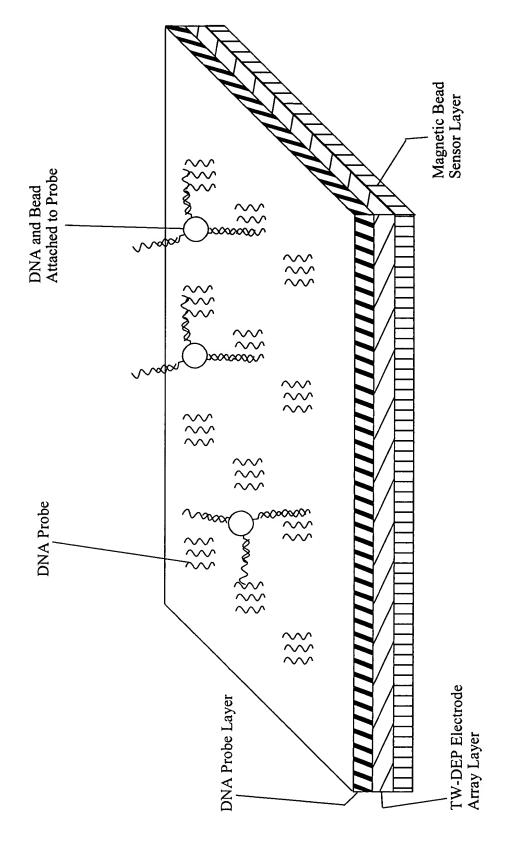


Figure 14F

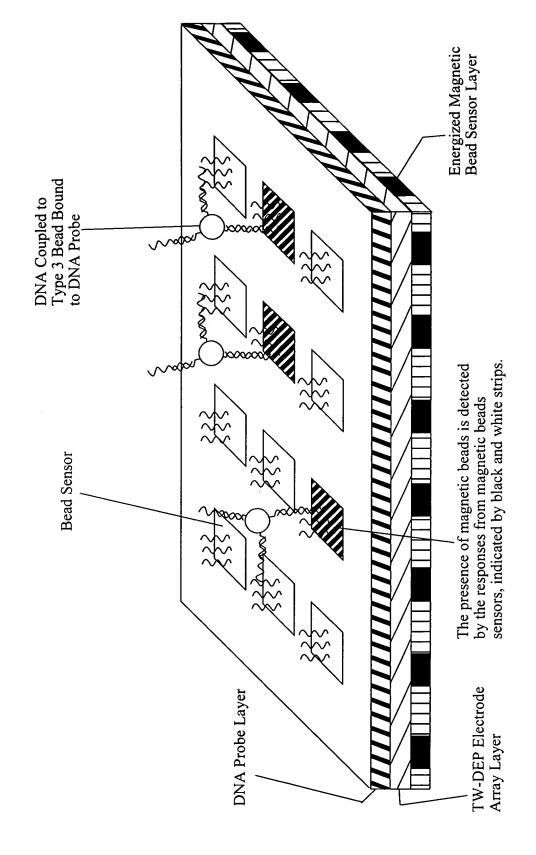


Figure 15A

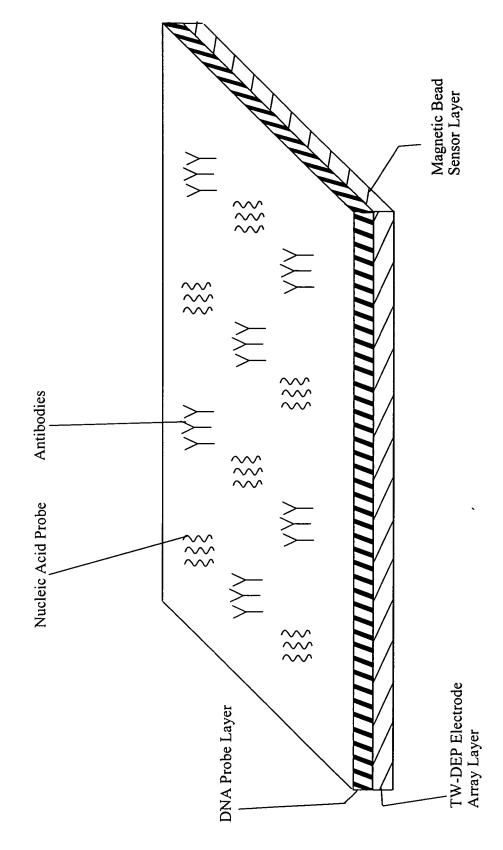


Figure 15B

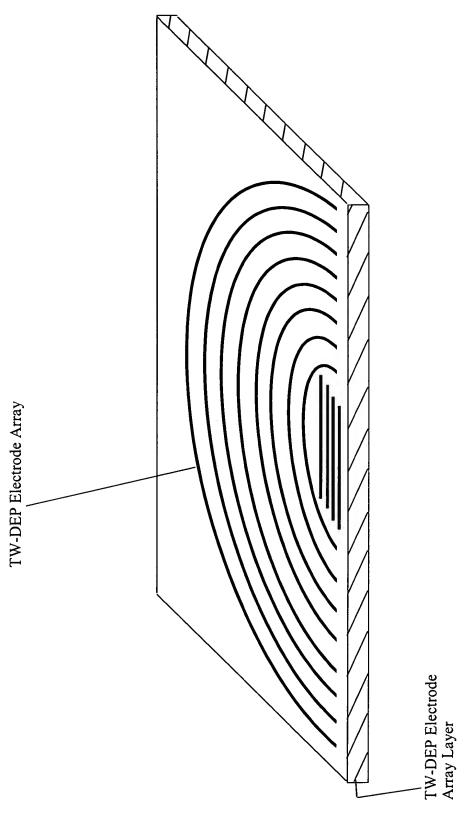
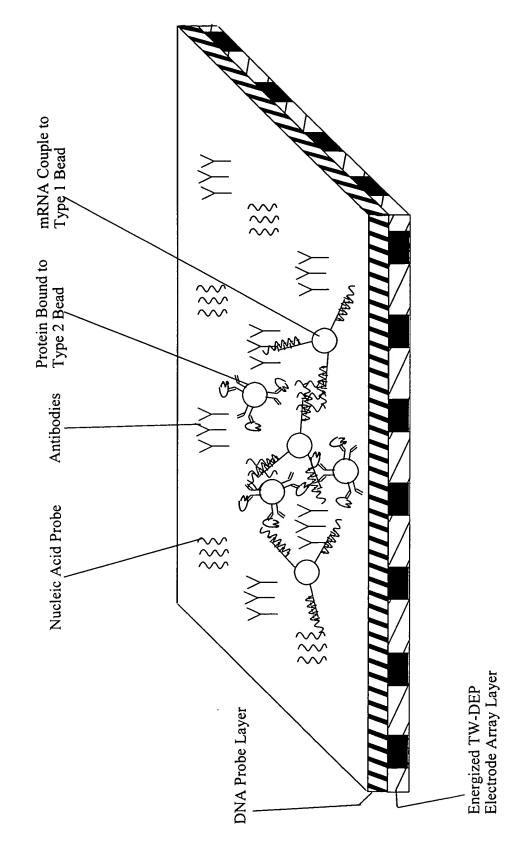
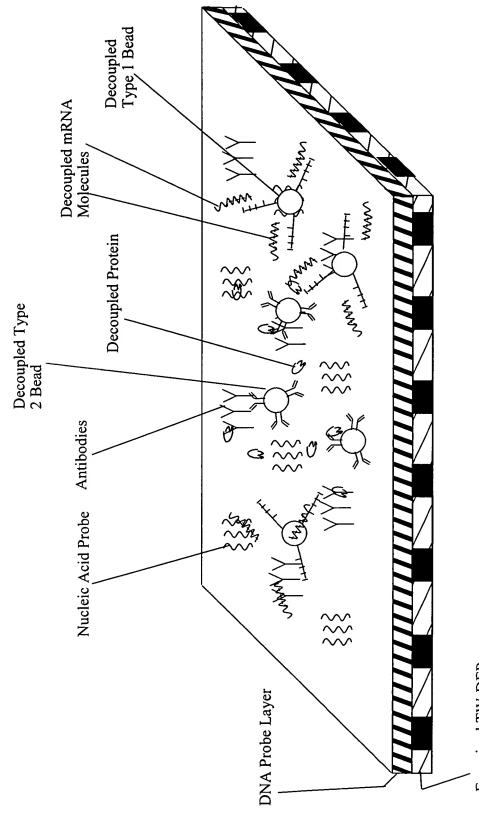


Figure 15C





Energized TW-DEP Electrode Array Layer

Figure 15E

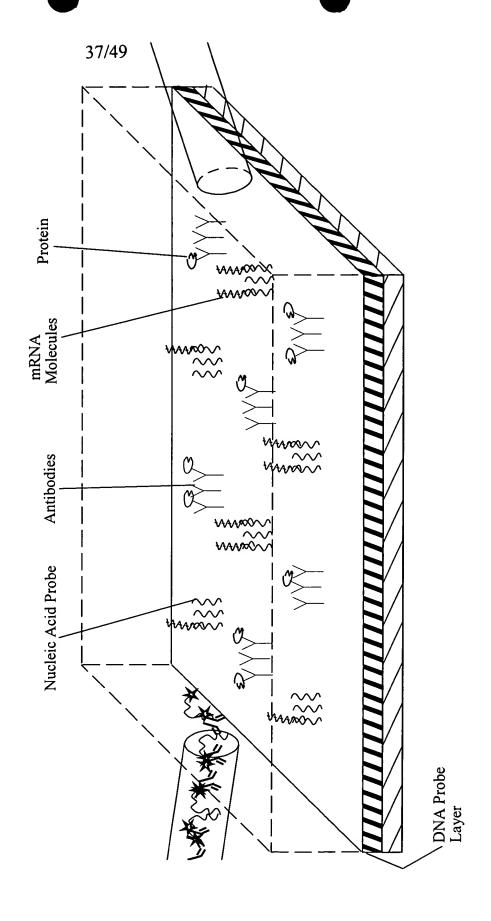


Figure 15F

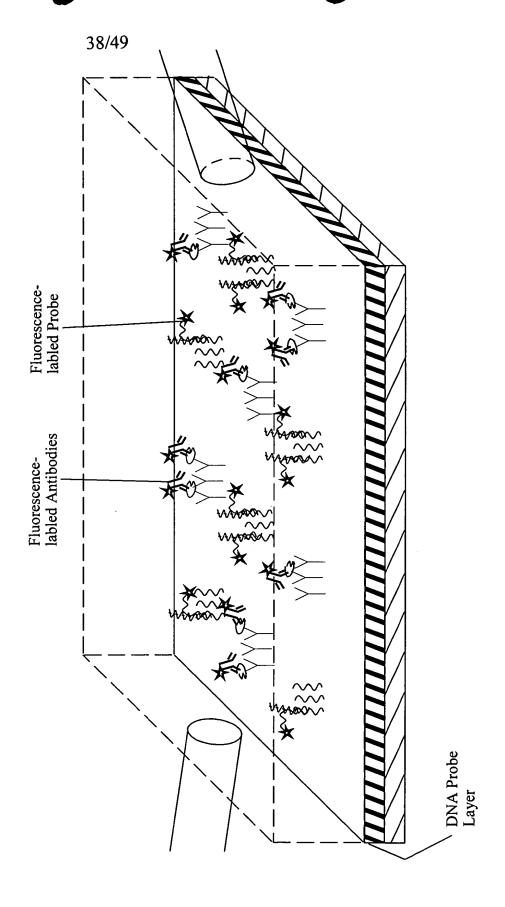


Figure 16A

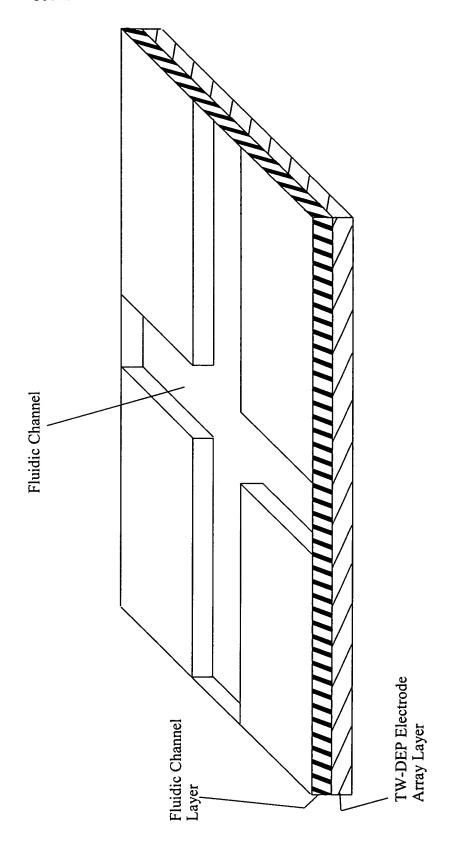


Figure 16B

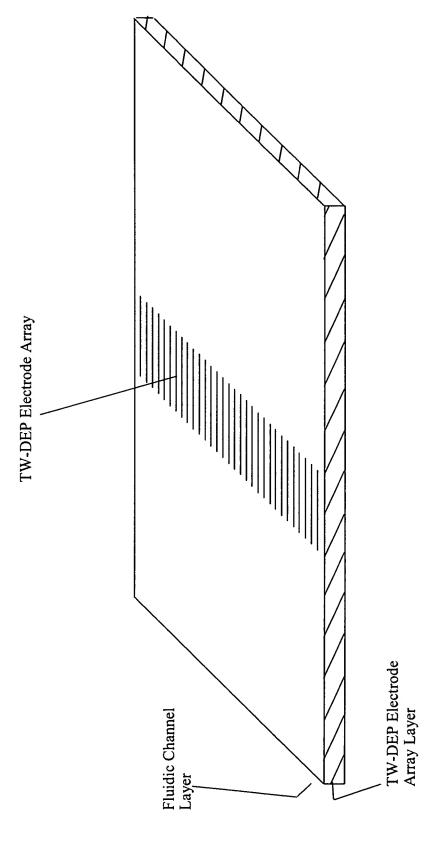


Figure 16C

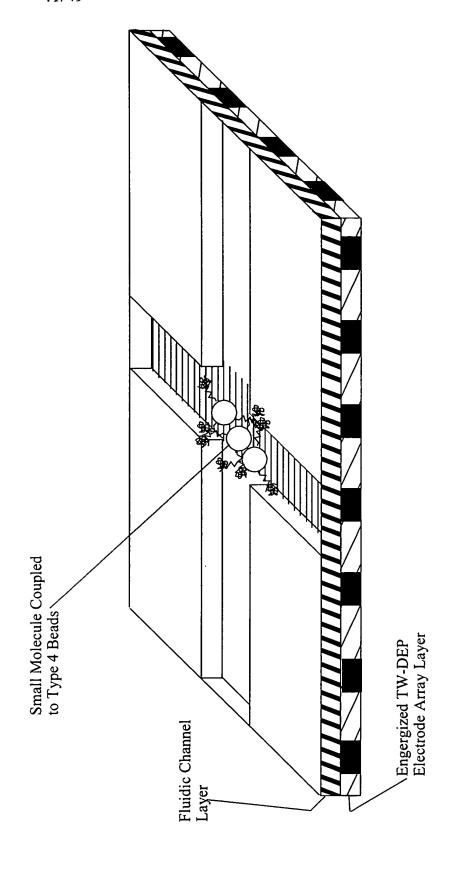


Figure 16D

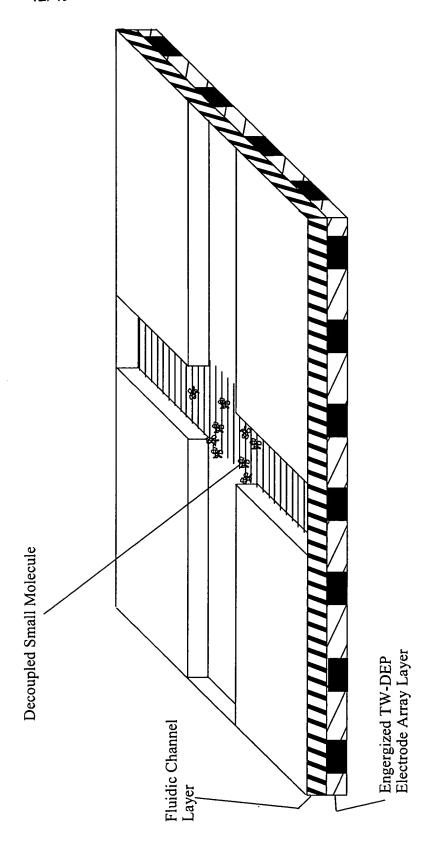


Figure 16E

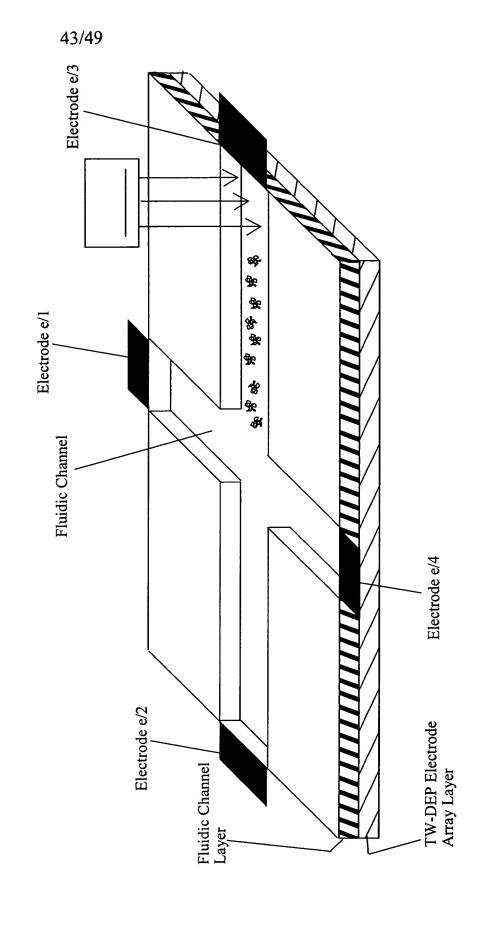
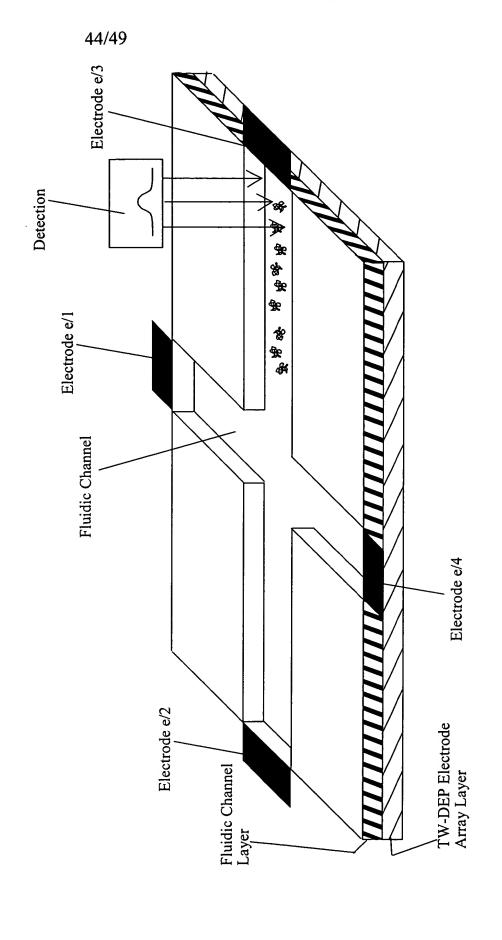


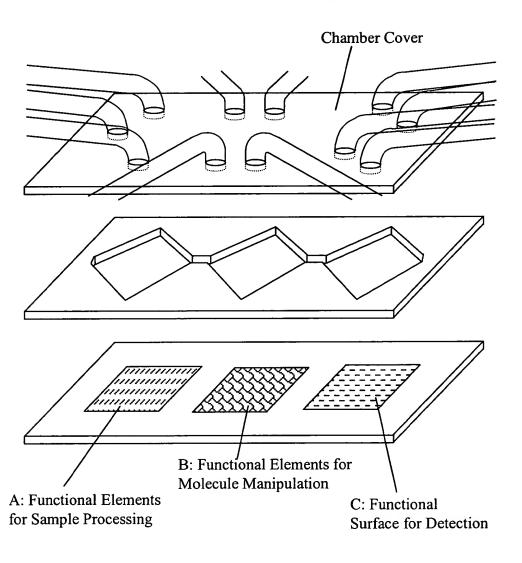
Figure 16F



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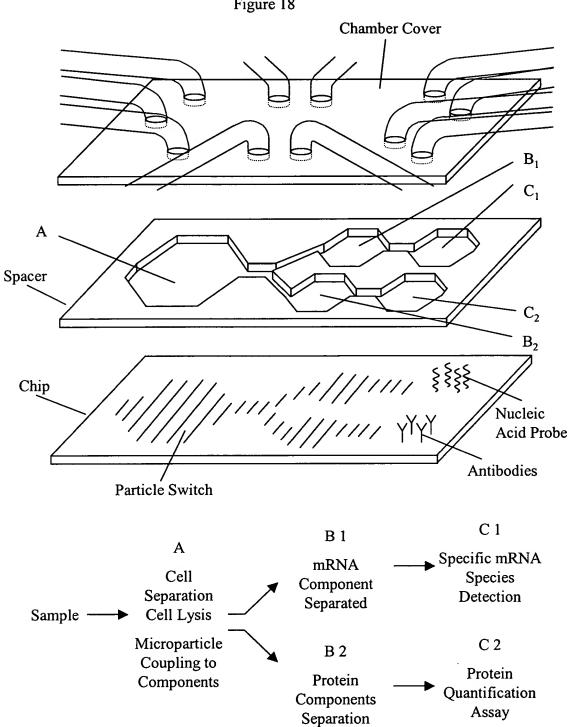
Figure 17

SINGLE CHIP SYSTEM



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Figure 18



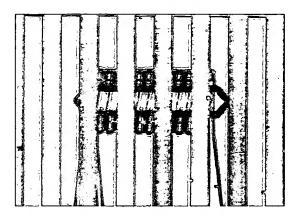


Figure 19A

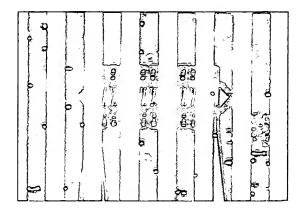


Figure 19B

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Figure 19C

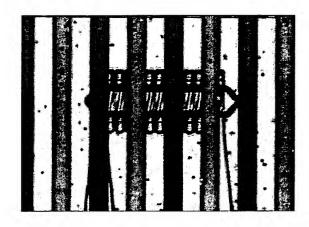


Figure 19D

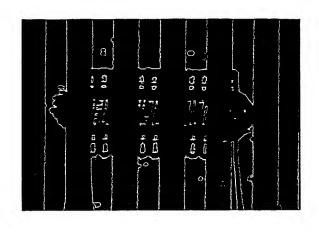
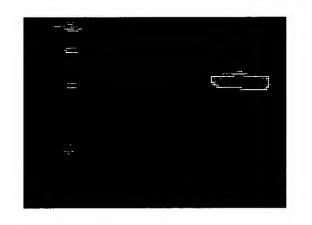


Figure 19E



Marker N-control G3PDH

Figure 19F